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SEEBOHM'S "BIRDS OF JAPAN."

The Birds of the Japanese Empire. By Henry Seebohm. Pp. i.-xxiv., 1-386. (London: R. W. Porter, 1890.)

MR. SEEBOHM'S work on the ornithology of Japan is sure to be welcome to naturalists, as it is always useful to have the avifauna of any country or group of islands monographed and historically brought up to date. In his latest work Mr. Seebohm has incorporated all the results obtained by recent explorers in Japan, and we have now a very fair idea of the birds of this portion of Eastern Asia. The map which accompanies the volume also helps to a better understanding of the relations of Japanese ornithology with those of the adjacent countries. Mr. Seebohm has further made use of the present work to amplify and expound his recently-published "Classification of Birds," so that the work contains his latest views on this important subject. In his original work he gave two schemes of arrangement, giving a preference to the second or "alternative" one. He appears now to have changed his mind, and to have reverted to his original idea (" Classif. B.," p. vii.), with this important modification, that he now places his Coraceiiformes after his Pico-Passeres, ending with Mimogypes (American Turkey Vultures), which lead from the Ground Hornbills (*Bucorax*), and are followed by the Sub-class Falconiformes. There is no doubt that this is a great gain in idea, and we are glad to see that Mr. Seebohm is modifying his first notion, that it is absolutely advisable to reduce the orders of birds to a small number of Sub-Classes. We are of opinion that a still further increase in the number of Orders will have to take place before the scheme works to the satisfaction of ornithologists.

The exigencies of arranging the Passerine Birds in the present work, or at least the bulk of the Palæarctic genera, have obliged Mr. Seebohm to declare himself on the subject of their classification, and this is his declaration:—"With some slight modifications, I have adopted that defined by Mr. Oates ('Fauna of British India: Birds,' i., p. 8), which seems to me to be a distinct advance upon previous arrangements." Mr. Seebohm is under a misapprehension here, unless we allow that his "slight modifications" are intended to entirely subvert Mr. Oates's arrangement by turning it topsy-turvy—a new method of appreciation. The latter gentleman begins with the *Corvidæ*, Mr. Seebohm with the *Turdinæ*, not one of Mr. Oates's families being allowed full rank, but all of them relegated to the position of Sub-families in the family *Passeridæ!* The *Crateropodinæ* (a bad substitute for the *Timeliidæ* (*inæ*) follow the *Turdidæ* in Seebohm's arrangement, whereas in Oates's classification they come after the *Paridæ*, which are by him considered to be a sub-family of the *Corvidæ*. Oates's *Sylviidæ* are separated from his Timaline birds by whole families of *Certhiidæ*, *Sittidæ*, and *Regulidæ*, while in the Seebohmian arrangement the *Sylviinæ* follow the *Crateropodinæ*, and are in turn followed by the *Parinæ*, which contains Gold-crests (= Fam. *Regulidæ* of Oates), Tits (= Sub-fam. *Parinæ* of Oates), Wrens and Creepers (= Fam. *Certhiidæ* of Oates), as well as the Nuthatches (= Fam. *Sittidæ* of Oates). The *Laniidæ* and *Sturnidæ* are the only families which are similarly located by both authors, and in our humble opinion both of them are wrong. If Mr. Seebohm should ever honour us by following any classification of ours in the way in which he has followed that of Mr. Oates, *with slight modifications*, we can only beg to be protected from our friends!

The present work commences with a useful table of the literature relating to the avifauna of Japan, to which may be added a paper by Salvadori and Giglioli, "Uccelli raccolti durante il Viaggio della Corvetta *Vettor Pisani*, &c.," where there are some useful notes on the Scoters (*Œdemia*) and other birds. It seems to us a great pity that, having looked up all his books with so much assiduity, Mr. Seebohm did not think it worth while to publish a full list of references to Japanese birds, which would have been most useful, and is even necessary in a work of this kind. The chapter on the "Geographical Distribution of Japanese Birds" is very interesting, and the subject is worked out with all Mr. Seebohm's accustomed energy and speculativeness, aided by full statistics.

In the third portion of the work, the "Classification and Identification of Japanese Birds," the reader will find a great deal more than the mere title denotes, for, as we have hinted before, the author has seized the opportunity of amplifying all his previous work on the classification of Birds, so that this portion of the book is of the highest interest to ornithologists of every country. We find, however, that some of the woodcuts are not explained in the text, and are apparently added as make-weights to the diagnostic characters of the orders, but the reason for so doing does not seem very clear.

Apart from the omission of the name of the Natural History Museum (Preface, p. iii.) from the list of four-fold obligations which are considered to be due to other Museums of Europe and America, a very uncomplimentary allusion to the work of the present writer occurs on p. 113, under the heading of *Motacilla japonica*. We have no intention of following Mr. Seebohm in his reasoning with regard to this species. He devotes nearly a page to show into what confusion (partly through his own fault, as he admits) these black-backed Wagtails of Japan had fallen, and then he claims to have fixed, in 1884, that Swinhoe's name of *japonica*, bestowed in 1863, must be restricted to the larger form which we re-named *M. grandis*, "a useless synonym," as Mr. Seebohm is kind enough to call it. Nevertheless, we can assure Mr. Seebohm that if Swinhoe intended to give his name of *japonica* to one of the black-backed Wagtails of Japan, it was to the *small* one and not to the *large* one, that he meant it to apply, as a specimen in the British Museum labelled in his own handwriting shows! Swinhoe's name, therefore, is a synonym of *M. lugens*, and neither Mr. Seebohm nor any one else can "fix" the name of *japonica* for the large species. So far from being a "useless synonym," the name of *M. grandis* is the only one which can properly be applied to the latter, and even if Mr. Seebohm's argument had been correct, his manner of criticism is needlessly disagreeable.

In a work like the present, which is nothing if not exhaustive, it is surprising that we can find no reference to *Garrulus lidthi* and *Accentor fervidus*. The only evi-

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dence to hand at present is that the former bird inhabits the mountains of the interior of Japan, whilst the *Accentor* may be only *A. rubidus*, but it is at least well to say so. Then again the recent work of Mr. Ogilvie-Grant on *Platalea* and *Turnix* was worth a little consideration. The nomenclature proposed for the latter genus is not adopted, and in spite of the large series of measurements given by Mr. Grant to show that the Eastern race of the common Spoonbill has a longer bill than the Western race, Mr. Seebohm states that he has been "unable to find the slightest evidence of the truth of this statement," a mode of criticism more forcible than exact. We might also ask the author why he persists in calling the Woodcock, *Scolopax rusticola* instead of *S. rusticula*, and the Wild Duck, *Anas boschas* instead of *A. boscas?* Also why does he misspell Linnæus's name throughout the work? Mr. Seebohm has, however, his own ideas as to the fitness of things, and he is in many respects too ultra-conservative for us to hope that our criticism will move him. Otherwise we might ask what is the use of *Eurhinorhynchus* having its spoon-shaped bill, if it is to be merged in the genus *Tringa?* Again, to merge so many species under the genus *Picus*, and again under *Fringilla*, which most of us consider to belong to recognizable genera, tends to fog and confuse the ideas of geographical distribution, and by no means simplifies the study, as Mr. Seebohm would have us believe.

We may add that the work is illustrated by figures from the author's work on the *Charadoiidæ*, but a large number of new cuts are added, which increase the utility of the diagnoses in the classificatory part of the work.

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JEANS'S "WATERWAYS AND WATER TRANSPORT."

Waterways and Water Transport. By J. Stephen Jeans, M.R.I., F.S.S. (London and New York: E. and F. N. Spon, 1890.)

THIS volume is intended to give a description of the waterways of the world and water transport, and more particularly means of transport by artificial waterways. Under the heading of "The Transportation Problem," the author deals with the vast improvements made during recent years in roads, both ordinary and rail, and with the great advancement of trade caused by better means of transport during the last hundred years. He shows that, although canals may be considered as belonging to a bygone day, they are now coming again into prominence as a cheap means of transport, and that probably they will in many cases be made the nucleus of a new and better system, under which the great inland towns of Lancashire, Staffordshire, and Yorkshire may practically become maritime places. Chapters ii., iii., and iv. deal with the English river and canal system, and the waterways of Scotland and Ireland, giving an historical account, and showing how most of them in many ways have grown and improved. Readers of this volume will be surprised no doubt at the network of canals in this country: one is accustomed to think of railways as the only means of transport, and to forget the really large traffic carried by canals in many counties. The author tells us of the many continuous lines of water communication between different commercial centres of importance in England, and points out how often it happens that the through routes are rendered useless for really large boats, owing to the locks being shorter or narrower on one section than on another—thus allowing the smallest lock to be the gauge of the boat—down to the very low maximum of twenty-four tons on the canal system between the Derbyshire district and London.

On projected canals the author has much of course to say. The Manchester Ship Canal, which has attracted so much attention, no doubt has been the cause of many similar projects. The Forth and Clyde Canal is designed to enable vessels of considerable tonnage to pass from sea to sea, the present waterway being too contracted to be of much use. The Sheffield and Goole Canal is projected to form an improvement on the present navigation, to enable barges carrying 700 tons, and small sea-going steamers carrying 300 to 400 tons, to come to Sheffield for cargoes, and to serve the South Yorkshire collieries. The proposed waterways from Birmingham to the sea are now being considered in that district. In short, the present tendency seems to be to bring the ship to the manufactory, and thus save the railway charges to the coast for the carriage of the manufactured article.

The book is divided into three sections, the first of which concludes with a good detailed description of the waterways of different countries. Holland, the land of dykes and ditches, appears to have a splendid system of water communication, and the United States has received ample notice at the hands of the author. The waterways of British India are described, and the question of canals *versus* railways in that country is discussed. The author says that "Sir Arthur Cotton has even advocated the summary and indefinite suspension of nearly all railway schemes and works, in order that the attention of the Government might be concentrated upon canals, mainly for irrigation, but also adapted for purposes of navigation." This is all very well from the canal point of view, but it would be interesting to calculate the capacity of canals capable of contending with the present traffic on the railways, excluding any military questions from the subject; and in case of the famine railways, *i.e.* railways built to distribute food as a primary reason for their existence, and where quickness of delivery becomes the all-important consideration, the comparison becomes absurd. Much important work has, however, been done in India by an extensive system of artificial waterways serving the dual purpose of irrigation and navigation, and by careful superintendence the country is greatly improved and enriched by their use.

Section II. of the volume treats of the important subject of ship canals. The greatest artificial waterway constructed up to the present time has been the Suez Canal, and this monument of engineering skill is very properly dealt with first in this section. It is interesting to note that some of the earliest canals recorded were constructed between Suez and the Nile, and these were for some reason allowed to fall into decay. The author gives an excellent account of the construction of the Suez Canal; the political and monetary difficulties encountered by M. de Lesseps in the early days of the company are explained; and the ultimate completion and enormous growth of traffic through the canal are well described. On p. 208, we

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